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MONTANA WEATHER AND CROP SUMMARY

U.S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service
Cooperating with
AGRICULTURAL EXTENSION SERVICE
Montana State University

U.S. DEPARTMENT OF COMMERCE
Weather Bureau

Released October 17, 1968

WEATHER SUMMARY, SIX MONTHS, APRIL-SEPTEMBER, 1968, INCL.

TEMPERATURE: The outstanding temperature feature of the 1968 growing season in Montana was the persistent coolness of all months in all seven divisions, with only a few minor exceptions. Midsummer hot weather was much less extensive than usual, and when warm weather did arrive it was of shorter duration than normal. The season's warmest was 108° at Miles City on July 12, but only a few stations reached 100° at any time during the summer. In fact, the average temperature departure for the six months for all seven divisions was greater than -2° meaning a total growing degree-day deficiency of around 360°, partly reflected in the slowness with which some of the State's crops approached maturity during the season. General hard freezes in the spring occurred as late as May 20 in much of the State, but in some higher western valleys frost and freezing weather occurred until late June. And by late August early freezes had occurred in many of the same valleys. The first really general freeze (most stations) at summer's end occurred during the week starting September 20.

PRECIPITATION: Abnormally heavy precipitation for the season prevailed almost everywhere, as the accompanying tabulation shows. Notable exceptions were few, including four or five stations in the Northeastern Division and isolated points elsewhere. While April was generally drier than normal in all divisions, and July saw most stations receiving only about half their usual rainfall, May, June, August and September were very wet except for the two eastern divisions in September and the Northeastern Division in May. August was the wettest month, both in gross amounts and departures from normal, with division averages running from two to more than three times normal. At many points in the northeast corner it was the wettest August on record including stations with histories dating back for 50 or more years. Although the two eastern divisions were drier in September, the other five divisions continued wet, and several west of the Continental Divide locations had totals exceeding six inches. Moisture budgets, nearly even most places at the end of July, closed the season with notable excesses at many points, including a few in the otherwise relatively dry Northeastern Division. A quite heavy snowstorm hit higher elevations along both sides of the Continental Divide September 20-22, with stations in northern Glacier County experiencing snowfall of from 24 to 36 inches. With the adequate heavy mountain snowpacks on April 1, and the heavy rainfall thereafter, irrigation water supplies were plentiful in most areas throughout the season. Many reservoirs ended the summer with more water carried over than for several years.

SEVERE STORMS: As often is the case in wet summers, there were a number of damaging thunderstorms carrying hail, wind, and lightning. However, not as much hail damage was reported as in most of the other recent wet summers, and only about a third as much reported as in a few of the heavier hail years. Total hail damage to crops was reported to be less than $4 million, about $3 million of which came in July. The most troublesome hailstorm came on July 17, striking parts of Chouteau, Cascade and Judith Basin Counties with crop damage totaling about $2 million. Relatively small property damage, (as distinguished from crop damage) occurred from hail, but wind damage reported was about $600,000. A few tornado funnels were observed, but total damage was very small. One death resulted from a lightning strike near Browning (a man on horseback) June 11. Windstorms caused scattered small grain losses the latter half of the season, and three wind-caused deaths were reported, one each in April, July and August. The September 20-22 snowstorm damaged a number of trees in the Butte-Anaconda area, and caused temporary closure of some mountain pass highways between Butte and the Canadian Border. The fire season was brief and almost uneventful this season, thanks to the abnormal rainfall and humidity in August and September.

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CROP AND LIVESTOCK SUMMARY, 6 MONTHS
April 1968 Through September 1968

SOIL MOISTURE: Topsoil moisture supplies in early April were adequate on Montana farms and ranches with the exception of the northern one-third of the State. Subsoil moisture was adequate except in a few northern counties. Strong winds during the last week of April decreased the topsoil moisture supply, caused several duststorms and wind damage to winter wheat, mainly in the north central counties. Towards the end of May, topsoil moisture shortages developed along the northern border counties and in the northeast. In June rains replenished the soil moisture supply, except in some northeast and western counties. Hail damage occurred in scattered central, southern and western counties. Hot, dry weather during the middle of July rapidly depleted soil moisture throughout the State.

In early August soil moisture shortages developed in all western and southwestern counties and most counties east of the Divide. Cloudy rainy weather on the 13th and 14th, replenished soil moisture which remained adequate for the rest of the season.

WINTER WHEAT: The 1968 winter wheat crop came through the winter virtually undamaged. During winter wind damage and winterkill were light in all but one or two counties throughout the State. In early April it was starting to break dormancy and was in above average condition when high winds caused severe damage to wheat planted on sandy soil in north central counties. By June 14, 10 percent of the crop was headed. Harvesting began about July 26 and by August 2nd, 10 percent of the crop was harvested. Harvesting progressed well until interrupted by rains on the 13th and 14th of August. Rain and continued wet weather led to bleached grain and decreased yield and test weight. Harvest carried on intermittently and on September 13 reached 90 percent completion, about a week later than in 1967.

FIELD TILLAGE AND SPRING PLANTING: Field tillage work had started in all parts of the State by April, and about 5 percent of the spring wheat was planted by April 5. A rapid pace was maintained through April, largely due to the lack of spring snow and rainstorms that often delay planting.

On May 10, spring wheat planting was 95 percent complete, and barley, oats and sugarbeets were finished shortly thereafter. Planting of corn, potatoes and dry beans were completed shortly after June 1, after some delay by rain. Some freeze damage to young sugarbeet plants occurred in late May. At the middle of June, spring grains were in mostly good condition throughout the State. Rain delayed summer fallow and cultivation operations and weeds were a problem. Haying operations began in late June but were delayed by rain. The first cutting of alfalfa hay was 90 percent completed by July 26. Wild hay cutting was 90 percent complete by September 1. Cutting of spring wheat started in late July, and by August 9 five percent was harvested. Combining on oats and barley also began about the same time. Harvest was intermittently interrupted by rain. Spring wheat, barley and oats were 85 to 90 percent harvested by September 20. Flaxseed, corn silage, potato, and dry bean harvest started early in September. By the end of the month, potato harvest was 10 percent, dry beans 45 percent, and corn silage harvest about one-third complete. About 5 percent of the sugarbeets had been dug at that time.

LIVESTOCK AND HAY SITUATION: At the beginning of April, temperatures were nearly ideal for survival of newborn calves and lambs. Shearing, lambing, and calving were about one-third complete at that time. Due to a mild winter, as well as a near record hay crop last year, there were no hay shortages reported. Regrowth of range grasses was somewhat slow in the spring. Cool and windy days, as well as low nighttime temperatures, limited the growth of range grasses.

At the end of March, shearing, calving, and lambing were about one-third complete. Movement of range livestock to summer ranges started about May 1 and was virtually completed at mid-June. Calving and lambing were completed about the same time. Livestock were in good condition during the summer and forage available for grazing was generally adequate. Rains received in August brightened the outlook for late summer and fall grazing.

WINTER WHEAT SEEDING: Seeding of the 1969 winter wheat crop started late in August and reached 10 percent completion on September 6. Continued rain retarded progress compared with normal. By the end of September, progress reached 65 percent completion about the same as a year earlier. Good to excellent germination of the new seedlings was reported.

PRECIPITATION: 6-Month Total, April - September 1968, and Normal

STATION	6-Month Precipitation April - September 1968	Normal	STATION	6-Month Precipitation April - September 1968	Normal
		WESTERN DIVISION			
Alberton	10.83		Missoula 3NE	11.99	7.49
Big Fork 13S	17.05		Missoula WBAS	8.39	7.34
Creston	15.64		Olney	13.91	
Darby	7.98	7.45	Paradise	9.02	
Deer Lodge 3W	8.41		Philipsburg	10.75	9.74
Drummond	7.67	7.62*	Pleasant Valley	8.95	7.99
E. Anaconda	10.77	8.43	Polson Kerr Dam	10.89	
Elliston	11.55		Potomac	6.92	
Eureka	10.34		St. Ignatius	14.28	9.31
Fortine 1N	13.81	9.19	St. Regis	9.19	
Hamilton	7.94	6.67	Seeley Lake	9.74	
Haugan	13.03	9.05	Stevensville	5.32	6.57
Heron 2NW	16.69	10.24	Sula 1NE	9.75	
Hungry Horse Dam	20.10		Superior	9.77	7.57
Kalispell WBAS	11.90	8.09	Swan Lake	17.72	
Kalispell	12.17		Thompson Falls	9.47	8.18
Kila	11.07		Trout Creek	12.36	
Libby 1NE	7.25	6.70	Troy	9.61	
Libby 32SSE	11.41		Troy 18N	17.55	
Lindbergh Lake	13.18		West Mont. Br. Sta.	6.23	
Lolo Hot Spgs. 2NE	11.76		West Glacier	20.00	11.74
Lonepine 1WNW	5.71	5.57			
		SOUTHWESTERN DIVISION			
Alder 17S	10.24		Jackson	9.01	
Belgrade FAA AP	11.41	9.23*	Lakeview	11.99	
Boulder St. School	7.67		Lima	9.81	7.78
Bozeman MSU	15.71	10.90	Norris 3ENE	12.38	
Bozeman 6W	12.85		Norris Madison PH	11.75	11.87
Bozeman 12NE	27.73		Pony	12.86	
Butte FAA AP	9.71	8.33	Trident	9.22	
Dillon FAA AP	6.80	6.95*	Twin Bridges	6.49	
Dillon WMC	8.30	8.12	Virginia City	13.25	9.53
Divide 2NW	8.65		W. Yellowstone	16.05	9.63
Callatin Gateway 26SSW	14.93		Whitehall 7E	7.96	7.52*
Glen 4N	7.60		Wisdom	7.03	
Hebgen Dam	17.36	11.31			
		NORTH CENTRAL DIVISION			
Babb	16.29	13.53	Gildford	10.04	
Big Sandy	10.94	9.24	Goldbutte 7N	12.89	
Blackleaf	10.09		Harlem	10.85	8.95
Brady	11.65		Havre WBAS	10.62	8.61
Browning	11.83	10.17	Iliad	12.59	
Chester	9.60		Joplin 1N	8.71	
Chester 26WNW	12.22		Loma 1WNW	12.00	
Chinook		9.25	Lonesome Lake	9.43	
Choteau	10.86	9.34	Loring 10N	7.89	
Cleveland 5ENE	12.94		Malta	9.54	8.84
Conrad	11.99	9.49	Many Glacier	22.00	
Content	9.25		Phillips 1S	10.68	
Cut Bank FAA AP	11.88	9.12	Saco 1NNW	8.33	
Del Bonita	14.83		Shelby AP	9.72	
Dunkirk 14NNE	10.80	8.88	Shonkin 7S	28.04	
Dupuyer 7WNW	10.39		Simpson	8.41	8.16
Fairfield	11.52	9.32	Sweetgrass	9.70	
Forks 4NNE	9.90		Telegraph Creek	8.95	8.51
Ft. Assinniboine	10.90	8.56	Tiber Dam	9.68	
Ft. Benton	11.71	10.01*	Valier	11.63	10.26
Geraldine	12.90		Zortman	15.12	
		CENTRAL DIVISION			
Augusta	9.46	10.07	Martinsdale 3NNW	11.46	10.14*
Austin 1W	9.86		Melstone	17.11	8.60
Barber	12.95		Moccasin Exp. Sta.	13.94	10.64
Canyon Ferry	10.22		Neihart 8NNW	16.82	
Cascade 5S	15.14	10.45	Raynesford	15.47	
Cascade 20SSE	15.44		Rogers Pass 6NNE	15.56	
Denton 1NNE	13.08		Roundup	14.02	8.22
Flatwillow 4ENE	14.25	9.53	Roy 8NE	12.82	
Gibson Dam	12.08	12.01	Roy 24NE	10.14	
Grass Range	17.51		Ryegate 18NNW	11.16	
Grass Range 12NE	9.65		Stanford 1WNW	15.12	11.19

*Estimated Normal

PRECIPITATION: 6-Month Total, April - September 1968, and Normal

STATION	6-Month Precipitation April - September 1968	Normal	STATION	6-Month Precipitation April - September 1968	Normal
			CENTRAL DIVISION (Cont.)		
Great Falls WBAS	11.78	9.72	Sun River 5SW	10.13	
Harlowton	11.93		Toston 3SW	9.64	
Helena WBAS	9.99	7.49	Townsend	10.35	
Holter Dam	12.49	9.07	Utica 11 WSW	13.84	
Judith Gap 13E	13.83		White Sul. Spgs.	9.52	11.19
Lennep 6WSW	12.33		White Sul. Spgs. 24NW	13.26	
Lewistown FAA AP	15.38	12.02	Winifred	12.51	9.15
			SOUTH CENTRAL DIVISION		
Ballantine	16.80	7.99	Huntly Exp. Sta.	14.75	7.96
Belfry 4SSW	7.52		Hysham 19SSE	13.59	
Big Timber	12.59	10.06	Joliet	12.47	
Billings WP	11.73	9.43	Kirby 1S	15.83	
Billings WBAS	11.13	8.73	Livingston		9.09
Bridger	9.92		Livingston FAA AP	14.04	10.23*
Broadview	11.78		Melville 4W	13.33	
Busby	15.51	8.81	Mystic Lake	18.02	15.25
Columbus	11.54	9.51	Rapelje 4S	14.22	9.25
Cooke City	18.11		Red Lodge	18.36	13.39
Crow Agency	14.97	9.32	Wilsall 8ENE	17.51	
Custer	15.54		Wyola	12.47	9.04*
Gardiner	10.27		Yellowtail Dam	13.10	
Hardin	12.54				
			NORTHEASTERN DIVISION		
Bloomfield 6E	11.01		Mosby 2ENE	12.64	
Bredette	13.83		Mosby 18N	9.33	
Brockway 3WSW	8.59		Nohly 3WNW	13.97	
Circle	13.50	9.28*	Opheim 10N	7.90	
Cohagen	8.06		Opheim 12SSE	9.07	
Culbertson	13.48	10.26	Poplar	12.24	10.21
Fort Peck	9.92		Raymond Border Sta.	10.99	
Glasgow WBAS	6.17	9.26	Redstone	9.48	
Glendive	11.48	9.91	Richey	12.52	
Haxby 18SW	7.60	9.79	Savage	11.89	10.82
Hinsdale	10.50		Scobey	9.25	
Jordan	7.35		Sidney	11.28	10.72*
Jordan 22E	10.40	7.81	Vida	11.59	10.81
Lustre 4NNW	10.13	9.45	Westby	14.53	
Medicine Lake 3SE	9.87	10.35	Wolf Point 4ESE	11.87	
			SOUTHEASTERN DIVISION		
Albion 1N	10.97		Miles City FAA AP	12.59	9.04
Biddle 8SW	12.34		Mizpah 4NNW	10.00	
Birney 2SE	11.10		Moorhead 9NE	14.43	
Boyes	11.39		Otter 9SSW	13.47	
Brandenberg	13.80		Plevna	10.71	9.70
Broadus	12.23	10.10*	Powderville 8NNE	11.23	
Carlyle 12NW	11.25		Ridgway 1S	7.92	
Colstrip	14.80	10.48	Rock Springs	8.71	
Ekalaka	15.39	10.32	Sonnette 2WNW	12.94	
Ingomar 11NE	8.25		Terry	13.00	
Mildred	11.02	9.56	Terry 21NNW	13.75	
Miles City	12.72		Wibaux 2E	11.59	

*Estimated Normal

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